

In the abstract

Please replace the abstract with the following:

A process for determining a transforming element for a given transformation function, such that the number of roundings included by the transforming element is significantly reduced.
~~according to a process for determining a transform element for a given transformation function, which~~ The transformation function ~~comprises~~ includes a transformation matrix ~~and corresponds to a transformation of a digital signal from the time domain into the frequency domain or vice versa, and~~ the transformation matrix is decomposed into a rotaion matrix and an auxiliary matrix which, when multiplied with itself, equals a permutation matrix multiplied with an integer diagonal matrix. Further the rotation matrix and the auxiliary matrix are each decomposed into a plurality of lifting matrices. Further, the transforming element is determined to comprise of a plurality of lifting stages which correspond to the lifting matrices. The invention further provides a method for transforming a digital signal from the time domain into the frequency domain or vice versa according to the determined element ~~The invention further provides a method for the transformation of a digital signal from the time domain into the frequency domain according to the transforming element determined by the process described above.~~